Community Acquired Methicillin Resistant *Staphylococcus aureus* (MRSA) FACT SHEET

Sports Teams / Athletes

What is Staphylococcus aureus (staph)?

Staphylococcus aureus, often referred to as "staph," are bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25% to 30% of the population is colonized (when bacteria are present, but not causing an infection) in the nose with staph bacteria. Staph bacteria are one of the most common causes of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be treated without antibiotics. However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

What is MRSA?

Most staph bacteria are susceptible to antibiotics, and are termed methicillin susceptible *staphylococcus aureus* (MSSA). Some staph bacteria are resistant to several antibiotics and are therefore more difficult to treat. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

Who gets staph or MRSA infections?

Staph infections, including MRSA, occur most frequently among persons in hospitals and healthcare facilities who have weakened immune systems. These healthcare-associated staph infections include surgical wound infections, urinary tract infections, bloodstream infections, and pneumonia.

What is community-associated MRSA (CA-MRSA)?

Staph and MRSA can also cause illness in persons outside of hospitals and healthcare facilities. MRSA infections that are acquired by persons who have not been recently (within the past year) hospitalized nor had a medical procedure (such as dialysis, surgery, catheters) are known as CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people.

What does a staph or MRSA infection look like?

Staph bacteria, including MRSA, can cause skin infections that may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage. More serious infections may cause pneumonia, bloodstream infections, or surgical wound infections.

Are certain people at increased risk for community-associated staph or MRSA infections?

Clusters of CA-MRSA skin infections have been investigated among athletes, military recruits, children, Pacific Islanders, Alaskan Natives, Native Americans, men who have sex with men, and prisoners.
Factors that have been associated with the spread of MRSA skin infections include: close skin-to-skin contact, openings in the skin such as cuts or abrasions, contaminated items and surfaces, crowded living conditions, and poor hygiene.

How can an athlete prevent staph or MRSA skin infections?

Prevention steps:

1. Keep hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer before, during and after events. Always wash or sanitize hands after sneezing, blowing or touching the nose and after using the toilet.
2. Keep cuts, scrapes and wounds clean and covered with a bandage until healed. If a wound cannot be covered adequately, exclude players with potentially infectious skin lesions from practice or competitions until the lesions are healed or can be covered adequately.
3. Avoid contact with other people's wounds or bandages.
4. Avoid sharing personal items such as towels (even on the sidelines at a game or match), clothing, equipment and other personal items.
5. Encourage good hygiene, including showering and washing with soap after all practices and competitions. Always dry with a clean dry towel.
6. Establish routine cleaning schedules for the athletic area and equipment at least once weekly. Use a commercial disinfectant (which contains phenol) or a fresh (mixed daily) solution of one part bleach and 100 parts water (1 tablespoon bleach in one quart of water).
7. Wash towels, uniforms, scrimmage shirts, and any other laundry in hot water and ordinary detergent and dry on the hottest cycle. Also inform parents of these precautions if laundry is sent home. Laundry must be in an impervious container or plastic bag for transporting home.
8. Train athletes and coaches in first aid for wounds and recognition of wounds that are potentially infected.
9. Encourage athletes to report skin lesions to coaches and encourage coaches to assess athletes regularly for skin lesions.

Division of Public Health (DPH) recommends that facilities introduce a policy in which participants must inform the athletic director and/or coaching staff if they have a rash illness or skin lesion. Participants should be excluded from contact activities until evaluated by a healthcare professional.

What should coaching staff do if an athlete presents with a possible staph or MRSA infection?

1. Treat any draining wound as a potential MRSA infection.
2. Separate the infected athlete from direct physical contact with other participants. This includes practicing or training using any shared equipment.
3. The participant with an active infection must be evaluated by a physician or other advanced practice clinician (Nurse Practitioner or Physicians Assistant).
4. Inform the physician or clinician of the possibility of MRSA.
5. Treat uncultured wounds as MRSA.

Healthcare provider management of an athlete with a possible staph or MRSA infection

The physician or clinician should perform a culture and susceptibility test to determine what bacteria the athlete has and what antibiotic will be the most effective with the fewest side effects. Start the athlete on an antibiotic that is appropriate for MRSA at the same time the culture is taken. If the physician or clinician determines that the athlete does not have a bacterial infection, he or she will not receive an antibiotic. Antibiotics are not effective for nonbacterial infections. If an antibiotic is prescribed, the athlete must take all medication even after the infection seems to have healed. If a topical ointment is prescribed, it should be applied as directed. The athlete should follow all other directions as instructed by the physician or clinician. The physician or clinician must be informed if the athlete does not respond to treatment.

Are staph and MRSA infections treatable?

Yes. Staph and MRSA infections are treatable with antibiotics. If you are given an antibiotic, take all of the doses, even if the infection is getting better, unless your doctor tells you to stop taking it. Do not share antibiotics with other people or save unfinished antibiotics to use at another time.

Many staph skin infections may also be treated by draining the abscess or boil and may not require antibiotics. Drainage of skin boils or abscesses should only be done by a healthcare provider.

Is it possible that my staph or MRSA skin infection will come back after it is cured?

Yes. It is possible to have a staph or MRSA skin infection recur after it is cured. To prevent this from happening, follow your healthcare provider's directions while you have the infection, and follow the prevention steps above.

What can I do to prevent others from getting infected?

You can prevent spreading staph or MRSA skin infections to others by following these steps:

1. **Report all cuts, scraps, wounds or skin lesions to coaching staff.** Give all documentation from a physician or clinician regarding your injuries or wounds to coaching staff and the school nurse, especially if exclusion from sports has been advised.
2. **Cover your wound.** Keep any draining wound covered with clean, dry bandages. Follow your healthcare provider's instructions on proper wound care. Pus from infected wounds can contain staph and MRSA. Bandages or tape can be discarded with the regular trash.
3. **Wash your hands.** You, your family, and others in close contact should wash their hands frequently with soap and warm water or use an alcohol-based hand sanitizer, especially after changing the bandage or touching the infected wound.
4. **Do not share personal items.** Avoid sharing personal items such as towels, washcloths, razors, clothing, or uniforms that may have had contact with the infected wound or bandage. Wash sheets, towels, and clothes that become soiled with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes.

Are people who are positive for the Human Immune Deficiency Virus (HIV) at increased risk for MRSA? Should they be taking special precautions?

People with weakened immune systems, which include individuals with HIV, may be at risk for more severe illness if they get infected with MRSA. People with HIV should follow the same prevention measures as those without HIV to prevent staph infections, including frequent handwashing, covering wounds (e.g., cuts or abrasions) with clean dry bandages, avoid sharing of personal items, and contact their doctor if they think they have an infection.

Can I get a staph or MRSA infection at my health club?

In the outbreaks of MRSA, the environment has not played a significant role in the transmission of MRSA. MRSA is transmitted most frequently by direct skin-to-skin contact. You can protect yourself from infections by practicing good hygiene (e.g., practicing frequent handwashing and showering after working out); covering any open skin area such as abrasions or cuts with a clean dry bandage; avoiding sharing personal items; using a barrier (e.g., clothing or a towel) between your skin and shared equipment; and wiping surfaces of equipment before and after use.